

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

FINAL

Draft Conditional Major/Synthetic Minor Permit

No. F-06-044 Revision 1

SIEGEL-ROBERT AUTOMOTIVE, INC.

350 SCOTTY'S WAY, BOWLING GREEN, KY

August 21, 2008

RITA ARGUELLO, REVIEWER

AFS Plant I.D. # 21-227-00127

AI ID #: 4132, APE#: 20080001

MINOR PERMIT REVISION - F-06-044 R1:

This revision is to move Emission Points #1, #2, #3, #5, Electroplating Operation, from Section B to Section C, as insignificant activities, since the potential to emit is less than 5 tons per year on each emission point.

SOURCE DESCRIPTION:

Siegel-Robert Automotive (also known as S-R Kentucky), Inc. makes automotive grilles, handles and bathroom faucets. The source has applied for a Renewal of its Conditional Major permit that expired on May 7, 2006. Pursuant to 401 KAR 52:030, a Conditional Major permit (Permit No.: F-06-044) has been drafted for Siegel-Robert Automotive located at 350 Scotty's Way, Bowling Green, Warren County, Kentucky. The draft permit issued is a source wide conditional major permit which limits emissions of Particulate Matter (PM), Volatile Organic Compounds (VOC) and HAPs. The final permit was issued on March 21, 2007.

The Particulate matter (PM) is emitted from Surface Coating operations (paint spray booths) and has a fabric filter PM control unit that has 80% emission control.

The emissions resulting from the two (2) paint mask washer booths are negligible since these cleaning processes are described in AP-42 (p. 830) as having negligible emissions.

The only emissions from the grinding operation are Particulate Matter (PM) emissions. The size and nature of the grinding operation indicates that the grinding emissions are small. Therefore, the PM emissions from the grinders are considered negligible.

The two (2) plastic storage silos may emit PM during loading and/or unloading operations; however, the size and plastic pellet material indicates that the PM emissions, if any, are negligible.

PROCESS DESCRIPTION:

EP #31 Surface Coating Operations

The surface coating operation consists of two (2) paint booths equipped with fabric filter as a Particulate Matter control. According to the manufacturer the filter removal efficiency to control PM emissions is 80%. These spray paint booths are not equipped with a VOC emission control device. All the VOC emissions are directly discharged to the atmosphere. The PM emissions, however, are controlled by fabric filter.

EP #4 Decorative Chromium Electroplating

The process involves electroplating decorative chromium to a plastic substrate. The substrate consists primarily of an automotive ABS plastic.

This electroplating operation has a 3-stage mist eliminator as control equipment. Applicable requirements from 401 KAR 59:010, New Process Operations, and 40 CFR 63, Subpart N, National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks have been incorporated.

S.R. Automotive has chosen to be in compliance by keeping the surface tension below 35 dynes/cm, and not by using control equipment. Chemical fume suppressant containing wetting agent will be used at all times to control chromium emissions discharged to the atmosphere from the affected source.

The monitoring schedule using the Tensiometer (a device used to measure the surface tension of a solution) is explained in the Operation and Maintenance Plan submitted by S. R. Automotive. Since the surface tension will be kept below 35 dynes/cm at all times, performance testing is not needed.

EP #22 Plant Boiler #3

This boiler (Plant Boiler #3) is used to provide the plant with process heat in the electroplating operations. Plant boiler #3 has a rated capacity of 5 mmBTU/hr and uses natural gas as fuel. The boiler is not equipped with any emission control equipment. The boiler is regulated in accordance with 401 KAR 59:015, New Indirect Heat Exchangers.

EP #30 Sludge Dryer

The Sludge Dryer has a rated capacity of 5 mmBTU/hr and uses natural gas as fuel. It is equipped with a scrubber that is 98.5% efficient to control PM emissions.

Maximum Quantity Input of raw material = 500 lbs/hr. It is regulated per 401 KAR 59:010, New process operations.

Insignificant Activities:

Plastic Molding Operation

The highest emission factor obtained from vendor's studies for Particulate Matter and VOC is 0.28 lbs/ton and 0.4 lbs/ton respectively. The injection molding machines have a very low emission of PM and VOC as estimated by the manufacturer. Therefore, emissions are considered as negligible.

EP #1, #2, #3, #5 Electroplating Operation

The electroplating operation has the following emission points: Pre-plate (EP#1), Copper electroplating (EP#2), Nickel electroplating (EP#3), and Nitric Acid Strip (EP#5).

Each electroplating operation has a dedicated emission control system. The applicable regulations are 401 KAR 59:010, New Process Operations.

EMISSION AND OPERATING CAPS DESCRIPTION:

The following Conditional Major limits apply to the S-R Automotive, source wide renewal permit. The maximum allowed VOC emission limit under permit is 90 tons per year and PM/PM₁₀ source wide is 90 tons per year. The single HAP and/or combined HAPs shall not exceed 9 tpy, and 22.5 tpy, respectively.

APPLICABLE REGULATION:

The Kentucky Air Quality Control regulation 401 KAR 59:010 for a new process operation is applicable since the surface coating operation, paint spray booths, the paint mask washer booths, the injection molding machines, and the grinders commenced operation after July 2, 1975.

40 CFR 63, Subpart N, National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, applies to Decorative Chromium Electroplating (EP#4).

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.

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